**One Health News Bits**

**March 1, 2011**

[**Professor points to climate change as food-safety threat**](http://r.smartbrief.com/resp/cOcSBXzCwNBYpXwACicOlzCicNYYxf?format=standard)

Climate change has already begun taking a toll on the safety of the world's food supply, though the effects are poorly understood and urgently in need of more study and action, says Michigan State University Professor Ewen Todd. A warm-water disease pathogen called vibrio is spreading north as ocean temperatures rise and food shortages resulting from floods and droughts mean people store crops for longer periods, which increases the risk of developing dangerous mold.

[**Therapy animals prove beneficial to humans**](http://r.smartbrief.com/resp/cOcSBXzCwNBYpXwKCicOlzCicNNgto?format=standard)

People increasingly are realizing the health benefits associated with interacting with animals. One study found that being with a dog yields "feel good" hormones in people that allow them to better cope with stress and depression. Dogs and horses also are being enlisted as therapy agents to help people dealing with serious medical issues.

[**There's a need to identify switch that triggers prion diseases**](http://r.smartbrief.com/resp/cOeOBXzCwNBYqIirCicOlzCicNsVvF?format=standard)

British researchers have discovered that levels of prions, the proteins linked to bovine spongiform encephalopathy, scrapie and Creutzfeldt-Jakob disease, do not cause the diseases. The association between prions and disease is not in the protein level, but most likely in a switch that gets turned on when the proteins build up, according to the study set to be published in the journal Nature.

[**U.S. scientists contend animal experiments are crucial for achieving medical advances**](http://r.smartbrief.com/resp/cOeOBXzCwNBYqIiuCicOlzCicNDsSU?format=standard)

US researchers defended animal testing, telling a small group at one of the biggest science conferences in the United States that not doing animal research would be unethical and cost human lives. The researchers, who are or have been involved in animal research, told a symposium at the annual meeting of the American Association for the Advancement of Science (AAAS) that testing on animals has led to "dramatic developments in research that have improved and affected the quality of human life."

[**Lab results confirm rabies in Virginia horse**](http://r.smartbrief.com/resp/cOhKBXzCwNBYqWusCicOlzCicNXDlb?format=standard)

A Virginia veterinarian is urging owners to have their livestock animals vaccinated against rabies after a horse was confirmed by a lab test to be infected with the illness.

[**Researchers engineer fungus to fight malaria**](http://r.smartbrief.com/resp/cOhKBXzCwNBYqWutCicOlzCicNbcrO?format=standard)

Researchers have engineered a fungus called Metarhizium anisopliae that can enter a mosquito and release an anti-malarial protein that kills the malaria parasite without harming the host mosquito. While the malaria parasite can potentially develop resistance to the anti-malarial protein in the fungus, there are ways to modify the protein to prevent resistance, a researcher said.

[**Study ties microorganism diversity to lower asthma risk in children**](http://r.smartbrief.com/resp/cOhKBXzCwNBYqWuzCicOlzCicNZmsu?format=standard)

U.S. researchers have found that children living on farms and exposed to various types of microorganisms have a lower risk of developing allergies such as asthma compared with those living in urban areas. The study, which appears in the New England Journal of Medicine, suggests that certain microbial exposures on farms could be bringing forth Type 1 helper T cells, instead of the Type 2 helper T cells linked to asthma.

[**Fast response, funding key to stop food-based illnesses**](http://r.smartbrief.com/resp/cOhKBXzCwNBYqWuGCicOlzCicNmkge?format=standard)

Speed is key in identifying and investigating sources of food contamination and preventing further infection, according to a study in the New England Journal of Medicine. An accompanying editorial said the Food Safety Modernization Act will help the FDA respond to outbreaks, but only if Congress authorizes funding to do so.

[**Raw-milk advocates fear stricter FDA rules**](http://r.smartbrief.com/resp/cOhKBXzCwNBYqWuHCicOlzCicNsylT?format=standard)

The FDA is considering tighter rules on raw-milk production and sales, but advocates say the dedication to hygiene practiced by small farmers makes the unpasteurized milk they sell at least as safe as the "superheated" varieties. An FDA spokeswoman says the agency is looking at whether the aging requirements for cheese -- which is legal if aged at least 60 days -- "are sufficient to minimize pathogens."

[**AVMA comments on FDA's draft guidance on animal antibiotic use**](http://r.smartbrief.com/resp/cOhKBXzCwNBYqWuKCicOlzCicNTIlG?format=standard)

AVMA recently aired its views on the U.S. Food and Drug Administration's draft guidelines for the judicious use of antibiotics in food-producing animals. In a comment letter, AVMA called for the creation of a system of veterinary oversight in antibiotic use, saying "veterinarians with their unique training, knowledge, and expertise, are the only animal caretakers who have the ability to decide when antimicrobial use is appropriate and judicious."

[**Veterinarians lend their skills to global relief efforts**](http://r.smartbrief.com/resp/cOlmBXzCwNBYrtriCicOlzCicNACWG?format=standard)

Veterinarians are an integral part of the emergency-response teams dispatched to aid in animal-rescue efforts in earthquake-stricken Christchurch, New Zealand, the latest example of the expanding role U.S. veterinarians play when animals around the globe are in need. Oregon veterinarian Joe Snyder recently returned from teaching animal-care skills to residents of Haiti, where veterinarians are in short supply, and Raghavan Sampathkumaran of California shared his passion for serving during a seven-month Army Reserve stint spent caring for military dogs in Kuwait and Kyrgyzstan.

[**Vaccine for cattle could aid in fight against E. coli contamination**](http://r.smartbrief.com/resp/cOlmBXzCwNBYrtrmCicOlzCicNibci?format=standard)

Pfizer recently received a conditional license from the U.S. Department of Agriculture to market a cattle vaccine from Epitopix that has the potential to reduce the incidence of E. coli infections. The beef industry, however, plans to conduct independent research prior to adopting the vaccine.

[**Oregon takes steps to address rabies outbreak linked to bats**](http://r.smartbrief.com/resp/cOlmBXzCwNBYrtrrCicOlzCicNtEGe?format=standard)

The Oregon Department of Fish and Wildlife is looking to implement a large-scale pet vaccination program to stem an outbreak of bat-rabies that killed 10 animals in Josephine County. A proposal drafted by the state's wildlife veterinarian encourages area residents to have their pets vaccinated against rabies, and recommends immunizing the area's gray fox populations and other wild animals through vaccine baits.

[**Study: Newborn mice can regenerate damaged heart**](http://r.smartbrief.com/resp/cOlmBXzCwNBYrtrvCicOlzCicNKqji?format=standard)

An adult zebra fish can regenerate a damaged heart with no scar formation. This remarkable phenomenon has been seen in other fish and amphibians as well, but never before in a mammal. Now researchers from the University of Texas Southwestern Medical Center report in the current issue of Science that the mammalian newborn heart can fully heal itself.

[**Study: Cat-human relationships mirror human bonds**](http://r.smartbrief.com/resp/cOlmBXzCwNBYrtryCicOlzCicNlAiV?format=standard)

Austrian researchers have found that the bond between cats and their human owners is almost identical to relationships between humans, particularly when the owner is a woman. Researchers videotaped and analyzed interactions between 41 pairs of owners and their cats, and found that the pairs were often controlling each other's behaviors.

[**Horse stem cells hold promise for regenerative medicine**](http://r.smartbrief.com/resp/cOofBXzCwNBYrHmKCicOlzCicNlVDf?format=standard)

Canadian researchers say they were able to generate pluripotent stem cells from a horse and revert them back into the animal's embryonic cells. The findings could help pave the way for faster healing of injured animals as well as potential treatments for similar problems in humans, the researchers wrote in the Stem Cell Reviews and Reports journal.

[**Study: H1N1 and H9N2 flu strains could spawn more virulent combos**](http://r.smartbrief.com/resp/cOofBXzCwNBYrHmMCicOlzCicNoKwz?format=standard)

Chinese researchers have found that mice infected with eight hybrid viruses derived from combining the genes of the H9N2 bird flu and H1N1 flu strains developed severe forms of edema, hemorrhaging and pneumonia. The findings highlight the need to track hybrid strains that could develop from the two flu viruses, said the lead author of the study, which appears in the Proceedings of the National Academy of Sciences journal.

[**Indiana confirms first case of bovine tuberculosis in more than 30 years**](http://r.smartbrief.com/resp/cOofBXzCwNBYrHmOCicOlzCicNxdlN?format=standard)

State animal health officials say bovine tuberculosis has been found in a beef cattle herd in Indiana's southeastern corner -- the state's first such case in cattle in more than three decades.

[**Researchers find evidence of human-dog interaction in prehistoric times**](http://r.smartbrief.com/resp/cOofBXzCwNBYrHmSCicOlzCicNeBrp?format=standard)

Researchers have discovered in Siberia the remains of a male dog, which they say provide evidence that the animal might have lived and died among humans 7,000 years ago. "Based on how northern indigenous people understand animals in historic times, I think the people burying this particular dog saw it as a thinking, social being, perhaps on par with humans in many ways," the study's lead author said.